

Classified Process
K-25, S-50, Y-12

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By Authority of the District Engineer

PER *[Signature]*

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW	
1st Review - Date: 12/14/86	Determination (Circle Number(s))
Authority: <input type="checkbox"/> ADC <input checked="" type="checkbox"/> ADD	1. Classification Retained
Name: <i>[Signature]</i>	2. Classification Changed To:
2nd Review - Date: 12-16-96	3. Contains No DOE Classified Information
3. Contains No DOE Classified Information	4. Coordinate With:
4. Coordinate With:	5. Classification Canceled
5. Classification Canceled	6. Classified Information Bracketed
6. Classified Information Bracketed	7. Other (Specify):
7. Other (Specify):	

31 January 1945

JHK:nmg

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MEMORANDUM To: Captain Bradley G. Seitz. *(see memo. dtd 12/14/49 from Hammond to Mendenhall. Filed. T.S. Sect.)*

1. As requested in your memorandum dated 19 January 1945 the data as required in items 1 through 8, Schedule 1 and items 1 through 6, Schedule 2 of memorandum from R. O. Tolman to Major General Groves, dated 23 November 1944, is outlined below:

Schedule 1

The following items are furnished for the S-50, K-25, and Y-12 plants, each operating as a single unit, and each plant having the general characteristics expected to prevail when fully completed and operating at or near anticipated capacity levels.

	<u>S-50</u>	<u>Y-12</u>	<u>K-25</u>
1. Concentration of 25 in the feed material (%)	0.714	0.714	0.714
2. Annual feed requirements (Kg. of U)	343,000	53,500	233,000
3. Hold-up (Kg. of U)	10,290	30,000	28,300
4. Hold-up (Kg. of 25)	75	690	390
5. Concentration of 25 in the output material (%)	0.9	85	85
6. Annual output (Kg. of 25)	379	118	261
7. Concentration of 25 in waste material (%)	0.68	0.05 to 0.01	0.48
8. Annual amount of waste (Kg. of U)	290,000	17,000	230,000

RHTG # 105767
BOX # 229

Classification Change
To **SECRET**
By Authority of

Schedule 1B

ORIGINAL SIGNED BY MAY 18 1955
R. C. ARMSTRONG
Signature

The following estimates are furnished for a appropriate combination of plant facilities. In such a combination it is to be assumed that the K-25 plant operates as a single unit and data as set forth under Schedule 1 above will be applicable. The S-50 and Y-12 plant will operate in combination and the following estimates are furnished:

	<u>S-50</u>	<u>Y-12</u>
1. Concentration of 25 in the feed material (%)	0.714	0.714 (1) 0.9 (2)
2. Annual feed requirements (Kg. of U)	343,000	11,400 (1) 43,100 (2)
3. Hold-up (Kg. of U)	10,290	30,000
4. Hold-up (Kg. of 25)	75	832
5. Concentration of 25 in the output material (%)	0.9	87.4

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(Memo to Capt. Seitz, 1/31/45)

	<u>S-50</u>	<u>Y-12</u>
6. Annual output (Kg. of <u>25</u>)	879 (2)	155
7. Concentration of <u>25</u> in waste material (%)	0.68	0.05 to 0.01
8. Annual amount of waste (Kg. of U)	290,000	17,000

(1) Y-12 will require 11,400 KGU feed at normal concentration, since S-50 will not be able to produce sufficient material to fulfill Y-12 feed requirements.

(2) 42,100 KGU feed at 0.9% concentration represents the total S-50 production.

Schedule 2

The following estimates are furnished for Site W:

1. Concentration of <u>25</u> in feed material (%)	0.714
2. Annual feed requirements (Kg. of U)	995,000
3. Hold-up in piles, chemical plants, etc. (Kg. of U)	1,055,000
4. Hold-up in piles, chemical plants, etc. (Kg. of <u>25</u>)	7,280
5. Hold-up in piles, chemical plants, etc. (Kg. of <u>49</u>)	230
6. Annual output of <u>49</u> (Kg. of <u>49</u>)	210
7. Concentration of <u>25</u> in waste material (%)	0.685
8. Annual amount of waste material (Kg. of U)	994,500

J. H. KING
Captain, Corps of Engineers

DISTRIBUTION:

- CC#1 to Capt. Bradley G. Seitz
- CC#2 to Lt. Col. A. V. Peterson

P.C.#c